

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An 802.1X protocol-based multicasting control method, comprising the following steps:

Step 1: performing 802.1X authentication for a subscriber and storing authenticated subscriber information;

Step 2: intercepting a request message for joining in a multicasting group sent from the subscriber;

Step 3: obtaining a port number, a MAC address and a multicasting IP address of the subscriber from the request message;

Step 4: searching corresponding subscriber account information in the 802.1X authenticated subscriber information according to said port number and MAC address;

Step 5: authenticating the subscriber's account number information and the multicasting IP address, and then adding the subscriber to the multicasting group if the authentication is passed successfully; otherwise rejecting the subscriber's request;

wherein if said 802.1X authentication is based on port, when a subscriber attached to said port makes a request for joining in a multicasting group, the subscriber's MAC address is searched for first; if said MAC address is found, the subscriber's account number information is searched for according to said MAC address and said port number;

if said 802.1X authentication is based on MAC, when a subscriber attached to said port makes a request for joining in a multicasting group, the subscriber's account number information is searched for directly according to the subscriber's MAC address and the port number.

2. (Previously Presented) The 802.1X protocol-based multicasting control method according to claim 1, wherein in step 5, an authentication server at 802.1X authentication end is used to authenticate the subscriber's account number information and the multicasting IP address.

3. (Previously Presented) The 802.1X protocol-based multicasting control method according to claim 1, wherein in step 5, the authentications of the subscriber's account number and the multicasting IP address are implemented through verifying whether the multicasting IP address is authorized to receive said account number information.

4. (Canceled)

5. (Currently Amended) The 802.1X protocol-based multicasting control method according to claim 1, 2[[.]] or 3[[or 4]], wherein the subscriber joins in the multicasting group through IGMP protocol.

6. (New) An 802.1X protocol-based device, comprising: a Radius module, a 802.1X authentication module and a multicasting control module, wherein,

the 802.1X authentication module receives 802.1X protocol-based authentication information sent by a subscriber from a corresponding port on the 802.1X protocol-based device and transfer said authentication information to an authentication server for authentication through the Radius module;

the multicasting control module intercepts a request message for joining in a multicasting group sent from the subscriber to obtain the subscriber's MAC address and port number in the message for joining in a multicasting group and send the subscriber's port number and MAC address

information obtained from the message for joining in a multicasting group to the 802.1X authentication module;

the 802.1X authentication module searches for corresponding subscriber account number information according to the port and MAC address information, and then feeds back the subscriber account number information to the multicasting control module;

the multicasting control module sends the subscriber's account number and multicasting IP address to the Radius server for authentication via the Radius module;

the multicasting control module maintains the multicasting connection till the subscriber request exits after the subscriber is added to said multicasting group;

wherein if the 802.1X authentication is based on port, when a subscriber attached to said port makes a request for joining in a multicasting group, the subscriber's MAC address is searched for first; if said MAC address is found, the subscriber's account number information is searched for according to said MAC address and said port number;

if the 802.1X authentication is based on MAC, when a subscriber attached to said port makes a request for joining in a multicasting group, the subscriber's account number information is searched for directly according to the subscriber's MAC address and the port number.

7. (New) The 802.1X device according to claim 6, wherein the 802.1X device is implemented with an Ethernet switch or broadband access device.